



SEQUENCE LISTING

<110> LEWIN, DAVID
ADAMS, SEAN H.
YU, XING XIAN

<120> CGI-69 COMPOSITIONS AND METHODS OF USE

<130> 10716/66

<140> 09/888,358

<141> 2001-06-22

<150> 60/213,307

<151> 2000-06-22

<160> 18

<170> PatentIn Ver. 2.1

<210> 1

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 1

| | | | | | | |
|-------------|------------|------------|------------|------------|-------------|------|
| ctgaagcttc | aagatggctg | accaggaccc | tgcgggcatc | agccccctcc | agcaaattggt | 60 |
| ggcctcaggc | accggggctg | tggttaacct | tctcttcctg | acacccctgg | acgtggtgaa | 120 |
| ggttcgcctg | cagtctcagc | ggccctccat | ggccagcgag | ctgatgcctt | cctccagact | 180 |
| gtggagcctc | tcctatacca | aattgcccct | ctctctccaa | tccacaggga | agtgcctcct | 240 |
| gtattgcaat | ggtgtcctgg | agcctctgta | cctgtgcccc | aatggtgccc | gctgtgccac | 300 |
| ctgggtttcaa | gaccctaccc | gcttcaactg | caccatggat | gccttcgtga | agatcgtgag | 360 |
| gcacgagggc | accaggaccc | tctggagcgg | cctccccgcc | accctggtga | tgactgtgcc | 420 |
| agctaccgcc | atctacttca | ctgcctatga | ccaactgaag | gccttcctgt | tggtgtcgagc | 480 |
| cctgacctct | gacctctacg | cacctatggt | ggctggcgcg | ctggcccgcc | tgggcaccgt | 540 |
| gactgtgatc | agccccctgg | agcttatgcg | gacaaagctg | caggctcagc | atgtgtcgta | 600 |
| ccgggagctg | ggtgcctgtg | ttcgaaactg | agtggctcag | ggtggctggc | gctcactgtg | 660 |
| gctgggctgg | ggccccactg | cccttcgaga | tgtgcccttc | tcagccctgt | actggttcaa | 720 |
| ctatgagctg | gtgaagagct | ggctcaatgg | gctcaggccg | aaggaccaga | cttctgtggg | 780 |
| catgagcttt | gtggctgggt | gcctctcagg | gacggtggct | gcagtgtgta | ctctaccctt | 840 |
| tgacgtggta | aagacccaac | gccaggctgc | tctgggagcg | atggaggctg | tgagagtga | 900 |
| ccccctgcat | gtggactcca | cctggctgct | gctgcccagg | atccgggccc | agtcgggcac | 960 |
| caagggactc | tttgaggctt | tccttcctcg | gatcatcaag | gctgccccct | cctgtgccat | 1020 |
| catgatcagc | acctatgagt | tcggcaaaag | cttcttcag | aggctgaacc | aggaccggct | 1080 |
| tctgggcggc | tgaagggggc | aaggaggcaa | ggac | | | 1114 |

<210> 2

<211> 1546

<212> DNA

<213> Homo sapiens

<400> 2

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|-----|
| ggctaggtgc | gctgcgagcg | cgcgagacca | cgagggcgga | cggacgtaat | gggcccgcct | 60 |
| ggccctgggc | gccgcgcgcg | acgagcacca | gcctagagcc | aggactgaag | cttcaagatg | 120 |
| gctgaccagg | accctgcggg | catcagcccc | ctccagcaaa | tgggtggcctc | aggcaccggg | 180 |
| gctgtgggta | cctctctctt | catgacaccc | ctggacgtgg | tgaagggttcg | cctgcagtct | 240 |
| cagcggccct | ccatggccag | cgagctgatg | ccttctctca | gactgtggag | cctctcctat | 300 |

```

accaaattgga agtgcctcct gtattgcaat ggtgtcctgg agcctctgta cctgtgccca 360
aatggtgccc gctgtgccac ctggtttcaa gaccctaccc gcttcaactgg caccatggat 420
gccttcgtga agatcgtgag gcacgagggc accaggaccc tctggagcgg cctccccgcc 480
accctggtga tgactgtgcc agctaccgcc atctacttca ctgcctatga ccaactgaag 540
gccttcctgt gtggctcgagc cctgacctct gacctctacg caccatgggt ggctggcgcg 600
ctggcccgcc tgggcaccgt gactgtgatc agccccctgg agcttatgcg gacaaagctg 660
caggctcagc atgtgtcgta ccgggagctg ggtgcctgtg ttcgaactgc agtggctcag 720
gggtggctggc gctcactgtg gctgggctgg ggccccactg cccttcgaga tgtgcccttc 780
tcagccctgt actggttcaa ctatgagctg gtgaagagct ggctcaatgg gttcaggccg 840
aaggaccaga cttctgtggg catgagcttt gtggctgggt gcatctcagg gacgggtggc 900
gcagtgtgta ctctaccctt tgacgtggta aagacccaac gccaggctcg tctgggagcg 960
atggaggctg tgagagtga cccctgcat gtggactcca cctggctgct gctgcggagg 1020
atccggggcg agtcggggcac caagggactc tttgcaggct tccttcctcg gatcatcaag 1080
gctgccccct cctgtgccat catgatcagc acctatgagt tcggcaaaaag cttcttccag 1140
aggctgaacc aggaccggct tctgggcggc tgaaggggc aaggaggcaa ggaccccgtc 1200
tctcccacgg atggggagag ggcaggagga gaccagcca agtgcctttt cctcagcact 1260
gagggagggg gcttgtttcc ctccctccc ggcgacaagc tccagggcag ggctgtccct 1320
ctgggcggcc cagcaattcc tcagacacaa cttcttctg ctgctccagt cgtggggatc 1380
atcacttacc cccccccaa gttcaagacc aaatcttcca gctgccccct tcgtgtttcc 1440
ctgtgtttgc ttagctggg catgtctcca ggaaccaaga agcctcagc ctggtgtagt 1500
ctccctgacc cttgttaatt ccttaagtct aaagatgatg aacttc 1546

```

<210> 3

<211> 359

<212> PRT

<213> Homo sapiens

<400> 3

```

Met Ala Asp Gln Asp Pro Ala Gly Ile Ser Pro Leu Gln Gln Met Val
  1                      5                      10                      15

Ala Ser Gly Thr Gly Ala Val Val Thr Ser Leu Phe Met Thr Pro Leu
          20                      25                      30

Asp Val Val Lys Val Arg Leu Gln Ser Gln Arg Pro Ser Met Ala Ser
          35                      40                      45

Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Leu
  50                      55                      60

Pro Ser Ser Leu Gln Ser Thr Gly Lys Cys Leu Leu Tyr Cys Asn Gly
  65                      70                      75                      80

Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr
          85                      90                      95

Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val
          100                      105                      110

Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro
          115                      120                      125

Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala
          130                      135                      140

Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp
          145                      150                      155                      160

```

Leu Tyr Ala Pro Met Val Ala Gly Ala Leu Ala Arg Leu Gly Thr Val
 165 170 175
 Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln
 180 185 190
 His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala
 195 200 205
 Gln Gly Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu
 210 215 220
 Arg Asp Val Pro Phe Ser Ala Leu Tyr Trp Phe Asn Tyr Glu Leu Val
 225 230 235 240
 Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys Asp Gln Thr Ser Val Gly
 245 250 255
 Met Ser Phe Val Ala Gly Gly Ile Ser Gly Thr Val Ala Ala Val Leu
 260 265 270
 Thr Leu Pro Phe Asp Val Val Lys Thr Gln Arg Gln Val Ala Leu Gly
 275 280 285
 Ala Met Glu Ala Val Arg Val Asn Pro Leu His Val Asp Ser Thr Trp
 290 295 300
 Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser Gly Thr Lys Gly Leu Phe
 305 310 315 320
 Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala Ala Pro Ser Cys Ala Ile
 325 330 335
 Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser Phe Phe Gln Arg Leu Asn
 340 345 350
 Gln Asp Arg Leu Leu Gly Gly
 355

<210> 4
 <211> 351
 <212> PRT
 <213> Homo sapiens

<400> 4
 Met Ala Asp Gln Asp Pro Ala Gly Ile Ser Pro Leu Gln Gln Met Val
 1 5 10 15
 Ala Ser Gly Thr Gly Ala Val Val Thr Ser Leu Phe Met Thr Pro Leu
 20 25 30
 Asp Val Val Lys Val Arg Leu Gln Ser Gln Arg Pro Ser Met Ala Ser
 35 40 45
 Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Trp
 50 55 60

Lys Cys Leu Leu Tyr Cys Asn Gly Val Leu Glu Pro Leu Tyr Leu Cys
 65 70 75 80
 Pro Asn Gly Ala Arg Cys Ala Thr Trp Phe Gln Asp Pro Thr Arg Phe
 85 90 95
 Thr Gly Thr Met Asp Ala Phe Val Lys Ile Val Arg His Glu Gly Thr
 100 105 110
 Arg Thr Leu Trp Ser Gly Leu Pro Ala Thr Leu Val Met Thr Val Pro
 115 120 125
 Ala Thr Ala Ile Tyr Phe Thr Ala Tyr Asp Gln Leu Lys Ala Phe Leu
 130 135 140
 Cys Gly Arg Ala Leu Thr Ser Asp Leu Tyr Ala Pro Met Val Ala Gly
 145 150 155 160
 Ala Leu Ala Arg Leu Gly Thr Val Thr Val Ile Ser Pro Leu Glu Leu
 165 170 175
 Met Arg Thr Lys Leu Gln Ala Gln His Val Ser Tyr Arg Glu Leu Gly
 180 185 190
 Ala Cys Val Arg Thr Ala Val Ala Gln Gly Gly Trp Arg Ser Leu Trp
 195 200 205
 Leu Gly Trp Gly Pro Thr Ala Leu Arg Asp Val Pro Phe Ser Ala Leu
 210 215 220
 Tyr Trp Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Phe Arg
 225 230 235 240
 Pro Lys Asp Gln Thr Ser Val Gly Met Ser Phe Val Ala Gly Gly Ile
 245 250 255
 Ser Gly Thr Val Ala Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys
 260 265 270
 Thr Gln Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn
 275 280 285
 Pro Leu His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala
 290 295 300
 Glu Ser Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile
 305 310 315 320
 Lys Ala Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly
 325 330 335
 Lys Ser Phe Phe Gln Arg Leu Asn Gln Asp Arg Leu Leu Gly Gly
 340 345 350

<210> 5

<211> 25

<212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 5
 ctgaagcttc aagatggctg accag 25

<210> 6
 <211> 25
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 6
 gtccttgccct ccttgccct ttcag 25

<210> 7
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 7
 cttgtcatcg tcgtccttgt agtcgccgcc cagaagccgg tc 42

<210> 8
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 8
 ccacctgggtt tcaagaccct ac 22

<210> 9
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Probe

<400> 9
 cgcttcactg gcaccatgga tgc 23

<210> 10
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 10
 tgcctcacga tcttcacgaa 20

<210> 11
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 11
 agcgagctga tgccttcct 19

<210> 12
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Probe

<400> 12
 cagactgtgg agcttctcct ataccaaatt gcc 33

<210> 13
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 13
 ccctgtggat tggagagagg 20

<210> 14
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 14
 ctggctcctg cttcgca 17

<210> 15
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Probe

<400> 15
 tccgggctga atctggcacc a 21

<210> 16
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 16
 ggaagcctgc aaagagtccc 20

<210> 17
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: FLAG tag

<400> 17
 Asp Tyr Lys Asp Asp Asp Asp Lys
 1 5

<210> 18
 <211> 357
 <212> PRT
 <213> Mus sp.

<400> 18
 Met Ile Arg Thr Leu Gly Ala Leu Ala Val Gln Gln Met Val Ala Ser
 1 5 10 15

Gly Ala Gly Ala Val Val Thr Ser Leu Phe Met Thr Pro Leu Asp Val
 20 25 30

Val Lys Val Arg Leu Gln Ser Gln Arg Pro Ser Ala Thr Ser Glu Leu
 35 40 45

Thr Thr Pro Ser Arg Phe Trp Ser Leu Ser Tyr Thr Lys Ser Ser Ser
 50 55 60

Ala Leu Gln Ser Pro Gly Lys Cys Leu Leu Tyr Cys Asn Gly Val Leu
 65 70 75 80
 Glu Pro Leu Tyr Leu Cys Pro Asn Gly Thr Arg Cys Ala Thr Trp Phe
 85 90 95
 Gln Asp Pro Thr Arg Phe Thr Gly Thr Leu Asp Ala Phe Val Lys Ile
 100 105 110
 Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro Ala Thr
 115 120 125
 Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala Tyr Asp
 130 135 140
 Gln Leu Lys Ala Phe Leu Cys Gly Gln Ser Leu Thr Ser Asp Leu Tyr
 145 150 155 160
 Ala Pro Met Val Ala Gly Ala Leu Ala Arg Met Gly Thr Val Thr Val
 165 170 175
 Val Ser Pro Leu Glu Leu Val Arg Thr Lys Leu Gln Ala Gln His Val
 180 185 190
 Ser Tyr Arg Glu Leu Ala Ser Ser Val Gln Ala Ala Val Thr Gln Gly
 195 200 205
 Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu Arg Asp
 210 215 220
 Val Pro Phe Ser Ala Leu Tyr Trp Phe Asn Tyr Glu Leu Val Lys Ser
 225 230 235 240
 Trp Leu Ser Gly Leu Arg Pro Lys Asp Gln Thr Ser Val Gly Ile Ser
 245 250 255
 Phe Val Ala Gly Gly Ile Ser Gly Met Val Ala Ala Thr Leu Thr Leu
 260 265 270
 Pro Phe Asp Val Val Lys Thr Gln Arg Gln Met Ser Leu Gly Ala Val
 275 280 285
 Glu Ala Val Arg Val Lys Pro Pro Arg Val Asp Ser Thr Trp Leu Leu
 290 295 300
 Leu Arg Arg Ile Arg Ala Glu Ser Gly Thr Arg Gly Leu Phe Ala Gly
 305 310 315 320
 Phe Leu Pro Arg Ile Ile Lys Ala Ala Pro Ser Cys Ala Ile Met Ile
 325 330 335
 Ser Thr Tyr Glu Phe Gly Lys Ser Phe Phe Gln Arg Leu Asn Gln Glu
 340 345 350
 Gln Pro Leu Gly Arg
 355